REMARKS

This is a full and timely response to the outstanding final Office Action mailed August 27, 2007. Upon entry of this response, claims 1-6, 9-20, and 22-26 remain pending. Claims 7-8 and 20-21 have been cancelled. Applicants cancel the above claims merely to reduce the number of disputed issues and to facilitate early allowance and issuance of other claims in the present application. Applicants reserve the right to pursue the subject matter of these canceled claims in a continuing application, if Applicants so choose, and do not intend to dedicate the canceled subject matter to the public.

Claim 1 has been amended only to put the claims in better form for appeal, to reduce the number of disputed issues and to advance prosecution, as the amendment only incorporates the limitations of previously presented dependent claims 7 and 8. Claim 14 has likewise been amended only to incorporate the limitations of previously presented dependent claims 20 and 21. Entry of the above amendments, reconsideration and allowance of the application and presently pending claims are respectfully requested.

Further, because the present Office Action sets forth the same substantive rejections that were set forth in the previous Office Action. Therefore, Applicant continues to traverse these rejections for the same reasons advanced in Applicant's previous response (thereby preserving these arguments for appeal). In addition, Applicant sets forth the following additional remarks, which respond to the "Response to Applicant's Argument" section of the FINAL Office Action (beginning on p. 6).

I.   **Objections to Specification**

The Office Action objects to the specification for referencing reference numerals that do not appear in the drawings. Applicants wish to point out that on page 3 of the Amendment and Response to the Non-final Office Action dated March 27, 2007, Applicants submitted amendments to the specification which alleviate these various objections. More specifically,

these Amendments removed reference numeral 700 from the specification and correct the reference to the Grant Access Module by referencing its proper reference numeral 728. Accordingly, Applicants respectfully request that the objection to the specification be withdrawn.

II.   Claims 1-6 and 9-13 are Allowable

The Office Action indicates that claim 1 stands rejected under 35 U.S.C. §102(b) as allegedly being anticipated by U.S. Patent Number 6,052,379 ("*Iverson et al.*"). Applicants respectfully traverse this rejection on the grounds that *Iverson* does not disclose, teach, or suggest all of the claimed elements. As noted above, claim 1 has been amended to incorporate the limitations of previously presented dependent claims 7 and 8. No other amendments have been made to independent claim 1. Previously presented dependent claim 7 stands rejected by the Office Action as allegedly unpatentable over *Iverson* in view of A Generalized Processor Sharing Approach to Flow Control in Integrated Services Networks: The Single-Node Case ("*Parekh et al.*"). Previously presented dependent claim 8 stands rejected under 35 U.S.C. 103(a) as being unpatentable over *Iverson* in view of U.S. Patent Number 6,157,978 ("*Ng et al.*). As independent claim 1 presently contains the limitations of all three previously presented claims, Applicants shall discuss the rejection of currently amended independent claim 1 in the context of the above three rejections maintained by the Office Action. Claim 1 presently recites:

> 1. A method for allocating a shared resource among a plurality of devices, the method comprising the steps of:
>   associating a bucket to each one of the plurality of devices wherein the plurality of devices share a shared resource;
>   assigning a fill rate to each bucket where each bucket accrues a predetermined number of credits for each time period the associated device is stalled, ***wherein each fill rate is different, each fill rate indicating access priority assigned to the associated device***;
>   assigning a drain rate to each bucket where each bucket drains a predetermined number of credits for each time period the associated device is granted access to the shared resource, ***wherein each drain rate is different, each drain rate indicating access priority assigned to the associated device***;

comparing each bucket to determine a grant bucket having the most number of credits at a specific time; and

granting access to the shared resource to the device associated with the grant bucket.

(*Emphasis added*). Because the Office Action sets forth the same substantive rejection of independent claim 1 as was set forth in the previous Office Action, Applicants continue to traverse the rejection for the same reasons as set forth in the previous response. In addition, Applicants further discuss the rejection in the following. The Office Action states that *Iverson* in view of *Parekh* discloses the above emphasized limitation of **"each fill rate is different, each fill rate indicating access priority assigned to the associated device."** Applicants respectfully disagree. The reference cited by the Office Action discloses a scheme that would "allow the network to treat users differently, in accordance with their desired quality of service" by offering a node on a network a "guaranteed" session rate that is some fraction of an overall session rate. Office Action at 9. As cited by the Office Action, in a two-session system, a first session can be served at a rate of 1/3 and a second session can be served at a rate of 2/3. *See* Office Action at 10.

In contrast, the claimed embodiment does not operate by guaranteeing a session rate to each node on the network in the fashion taught by the cited references. The claimed embodiment operates by assigning a different fill rate to each bucket, wherein the different fill rates indicate **access priority** to shared resource. In addition, each bucket accrues credits for each time period a device associated with the bucket is stalled or does not have access to the shared resource. To illustrate at least one distinction, in a two session system that is implemented in accordance with the claimed embodiment, a first session may be assigned a fill rate of *n* and a second session may be assigned a fill rate of *2n*; however, the fill rates may not necessarily correspond to a "guaranteed" session rate as described by the reference cited by the Office Action. The fill rates correspond to how quickly each session would accrue credits to determine their access priorities with regard to a shared resource.

Further, a system in accordance with the claimed embodiment may allocate access to a shared resource based on priority **and** usage of the shared resource, as a bucket accrues or drains credits on the basis of its usage or non-usage of the shared resource. In contrast, the language cited by the Office appears to disclose a system capable of assigning access to a network according to priority **without regard to usage of the network**, as each node in the cited portion of the reference are "guaranteed" a particular rate. Office Action at 10.

In rejecting the previously presented claims, the Office Action also states that *Iverson* in view of *Ng* discloses the above emphasized limitation **"wherein each drain rate is different, each drain rate indicating access priority assigned to the associated device."** Applicants respectfully disagree. The above quoted limitation of independent claim 1 provides an additional level of granularity relative to the cited art in determining access and priority of access to a shared resource. The portions of the reference cited by the Office Action do not disclose the above emphasized limitations of the claimed embodiment. In contrast, the cited reference appears to disclose a priority scheme that allows higher priority agents to be serviced before lower priority agents in a revolving scheme that can limited by a timer, but fails to disclose associating a bucket with any type of fill rate or drain rate to any of the disclosed agents.

To illustrate further, the cited portions of the reference refer to a high priority agent F that is serviced until it is completed. The next highest priority agent G is then selected until it completes operations. Finally, agent H is selected until a **timer signals a timeout**. *See* Office Action at 11. The portions of the reference cited in the Office Action illustrate a revolving scheme that progresses from highest priority to lowest priority in a system that may be further limited by a timer. *See* Office Action at 11. The claimed embodiment, on the other hand, does not control, limit, or represent access or priority of access to a shared resource through the use of such a timer. Rather, as noted above, the claimed embodiment utilizes a bucket associated with a device and assigns differing fill rates and drain rates that correspond to credits based on an associated device's usage of the shared resource. Therefore, in contrast to the cited art, the

claimed embodiment may adjust access to a shared resource by adjusting a bucket's fill rate and/or drain rate rather than applying a blanket priority that is associated with a device in such a revolving scheme.

Accordingly, for at least the above reasons, Applicants submit that claim 1 is allowable over the cited art. Further, as dependent claims 2-6 and 9-13 contain all of the limitations of independent claim 1, Applicants submit that they are likewise allowable.

III.   Claims 14-19 and 22-26 are Allowable

The Office Action indicates that claim 14 stands rejected under 35 U.S.C. §102(b) as allegedly being anticipated *Iverson*. Applicants respectfully traverse this rejection on the grounds that *Iverson* does not disclose, teach, or suggest all of the claimed elements. As noted above, claim 14 has been amended to incorporate the limitations of previously presented dependent claims 20 and 21. No other amendments have been made to independent claim 14. Previously presented dependent claim 20 stands rejected by the Office Action as allegedly unpatentable over *Iverson* in view of *Parekh*. Previously presented dependent claim 21 stands rejected under 35 U.S.C. 103(a) as being unpatentable over *Iverson* in view of *Ng*. As independent claim 14 presently contains the limitations of all three previously presented claims, and because the Office Action maintained the same substantive grounds of rejection for independent claims 1 and 14, Applicants respectfully submit that claim 14 is allowable for at least the same reasons as claim 1. Further, as dependent claims 15-19 and 22-26 contain all of the limitations of allowable independent claim 14, Applicants submit that they are likewise allowable.

CONCLUSION

In light of the foregoing amendments and for at least the reasons set forth above, Applicants respectfully submit that all objections and/or rejections have been traversed, rendered moot, and/or accommodated, and that the now pending claims are in condition for allowance. Favorable reconsideration and allowance of the present application and all pending claims are hereby courteously requested.

Any other statements in the Office Action that are not explicitly addressed herein are not intended to be admitted. In addition, any and all findings of inherency are traversed as not having been shown to be necessarily present. Furthermore, any and all findings of well-known art and Official Notice, or statements interpreted similarly, should not be considered well-known for the particular and specific reasons that the claimed combinations are too complex to support such conclusions and because the Office Action does not include specific findings predicated on sound technical and scientific reasoning to support such conclusions.

If, in the opinion of the Examiner, a telephonic conference would expedite the examination of this matter, the Examiner is invited to call the undersigned attorney at (770) 933-9500.

Respectfully submitted,

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